HS# 637937
1/3

REPORT NUMBER 110-GTL-05-003

SAFETY COMPLIANCE TESTING FOR FMVSS NO. 110 TIRE SELECTION AND RIMS

GENERAL MOTORS OF CANADA LTD.
2005 BUICK LACROSSE, 4-DOOR PASSENGER CAR
NHTSA NO. C50103

GENERAL TESTING LABORATORIES, INC.
1623 LEEDSTOWN ROAD
COLONIAL BEACH, VIRGINIA 22443

JULY 5, 2005

FINAL REPORT

PREPARED FOR

U. S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
ENFORCEMENT
OFFICE OF VEHICLE SAFETY COMPLIANCE
400 SEVENTH STREET, SW
ROOM 6111 (NVS-220)
WASHINGTON, D.C. 20590

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Prepared By: Debra Messick

Approved By: [signature]

Approval Date: 7/5/05

FINAL REPORT ACCEPTANCE BY OVSC:

Accepted By: Theresa Lacuesta

Acceptance Date: 7/19/05

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7. Author(s) Grant Farrand, Project Engineer Debbie Messick, Project Manager	8. Performing Organ. Rep# GTL-DOT-05-110-003
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15. Supplementary Notes

16. Abstract

Compliance tests were conducted on the subject 2005 Buick Lacrosse passenger car in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure No. TP-110-02 for the determination of FMVSS 110 compliance.
Test failures identified were as follows:
NONE

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SECTION 1

INTRODUCTION

1.0 PURPOSE OF COMPLIANCE TEST

A 2005 Buick Lacrosse 4-door passenger car was subjected to FMVSS No. 110 testing to determine if the vehicle was in compliance with the requirements of the standard. All tests were conducted in accordance with NHTSA, Office of Vehicle Safety Compliance (OVSC) Laboratory Procedure, TP-110-02 dated 14 December 1989 and General Testing Laboratories, Inc (GTL) Test Procedure, TP-110-02 dated 22 May 2002.

1.1 TEST VEHICLE

The test vehicle was a 2005 Buick Lacrosse 4-door passenger car. Nomenclature applicable to the test vehicle are:

A. Vehicle Identification Number: 2G4WC532051308692

B. NHTSA No.: C50103

C. Manufacturer: GENERAL MOTORS OF CANADA LTD.

D. Manufacture Date: 04/05

1.2 TEST DATE

The test vehicle was subjected to FMVSS No. 110 testing during the time period May 24 through May 31, 2005.

SECTION 2

TEST PROCEDURE AND SUMMARY OF RESULTS

2.0 GENERAL

The 2005 Buick Lacrosse 4-door passenger car, NHTSA No. C50103, was subjected to FMVSS No. 110 testing during the time period May 24 through May 31, 2005.

2.1 TEST PROCEDURE

Prior to test, the test vehicle was inspected for completeness, systems operability and appropriate fuel and liquid levels, i.e., oil and coolant. The vehicle was then photographically documented as required by the DOT/NHTSA and GTL test procedures. Subsequent events included weighing the vehicle to establish delivered curb weight and the distribution of weight on the front and rear axles and each wheel position. The vehicle normal load as well as the maximum load on each wheel were measured. Data from each tire furnished with the vehicle were recorded. The vehicle tire placard was surveyed and photographed. Required dimensional data and other identifying data for the left front and right rear rims were obtained. The contour of the aforementioned rims was documented photographically.

In preparation for the deflated tire retention test, test instrumentation was installed in the vehicle. With the driver aboard, the vehicle was ballasted to equal the "vehicle maximum load on the tire" on the front and rear axle, as previously established. The tire pressure of all tires was adjusted to placard specifications for cold tire inflation at maximum loaded vehicle weight. The deflated tire retention test was then conducted on the left front tire followed by the right rear tire. The tests were conducted with the vehicle traveling in a straight line at 96.6 kph (60 mph). The respective tire was blown by an explosive charge on the tire's sidewall. Test data collected during the test included vehicle speed, deceleration, stopping distance, distance of uncontrolled deviation from a straight line and tire pressure. After the vehicle was stopped, any tire bead separation from the rim flange was documented photographically.

2.2 SUMMARY OF RESULTS

The test vehicle appears to be in compliance with the requirements of FMVSS No. 110.

SECTION 3

TEST DATA

DATA SHEET 1
SUMMARY

VEHICLE MAKE/MODEL/BODY STYLE: 2005 BUICK LACROSSE PASSENGER CAR
VEHICLE NHTSA NO.: C50103 ; VIN: 2G4WC532051308692
LABORATORY: GENERAL TESTING LABORATORIES
TEST DATE: 05/24/05

REQUIREMENT	PASS/FAIL
TIRE LOAD LIMITS AND PLACARD	
The vehicle is equipped with tires that meet the requirements of FMVSS 109. (FMVSS 110, S4.1)	PASS
The vehicle maximum load on the tire shall not be greater than the applicable maximum load rating as marked on the sidewall of the tire. (FMVSS 110, S4.2.1)	PASS
The vehicle normal load on the tire shall not be greater than the high speed performance test load specified in FMVSS 109 paragraph S5.5. (FMVSS 110, S4.2.2)	PASS
The placard must be permanently affixed to the glove compartment door or equally accessible location; and display the required information. (FMVSS 110, S4.3)	PASS
No inflation pressure other than the maximum permissible inflation pressure is specified unless as required. (FMVSS 110, S4.3.1)	PASS
RIM DIMENSIONS	
Each rim shall be constructed to the dimensions of a rim or alternate specified for the tire size. (FMVSS No. 110, S4.4.1 (a))	PASS
DEFLATED TIRE RETENTION	
Each rim shall retain the deflated tire until the vehicle can be stopped. (FMVSS 110, S4.4.1(b))	PASS

Statement of indication of compliance or noncompliance to FMVSS 110 and data reference:
THE BUICK LACROSSE APPEARS TO COMPLY WITH THE REQUIREMENTS OF FMVSS 110.

REMARKS:

RECORDED BY: L. Gonzales DATE: 05/31/05
APPROVED BY: D Mesick

DATA SHEET 2
TEST VEHICLE INFORMATION/RECEIVING INSPECTION

LABORATORY: GENERAL TESTING LABORATORIES DATE: 05/24/05

VEHICLE MODEL YEAR/MAKE/MODEL/BODY STYLE: 2005 BUICK LACROSSE

MANUFACTURE DATE: 04/05 NHTSA NO.: C50103 BODY COLOR: WHITE

VIN: 2G4WC532051308692 VEHICLE TYPE: PASSENGER CAR

GVWR 2034 kg (4485 lbs) GAWR(Fr) 1106 kg (2438 lbs) GAWR(Rr) 929 kg (2047 lbs)

BELTED SEATING POSITIONS: FRONT 2 MID N/A REAR 3 OTHER N/A

ENGINE DATA: 6 Cylinders 3.8 Liters ____ Cubic Inches

TRANSMISSION DATA: X Automatic ____ Manual 4 No. of Speeds

FINAL DRIVE DATA: ____ Rear Drive X Front Drive ____ 4 Wheel Drive

INSTALLED TIRE DATA: Size - P225/60R16 Mfr. - GOODYEAR

CHECK APPROPRIATE BOXES FOR VEHICLE EQUIPMENT/MAKE SURE ALL OPTIONS ON WINDOW STICKER ARE LISTED:

X	Air Conditioning		Traction Control	X	Clock
X	Tinted Glass		All Wheel Drive		Roof Rack
X	Power Steering	X	Cruise Control	X	Console
X	Power Windows	X	Rear Window Defroster	X	Driver Air Bag
X	Power Door Locks		Sun Roof or T-Top	X	Passenger Air Bag
X	Power Seat(s)		Tachometer	X	Front Disc Brakes
X	Power Brakes	X	Tilt Steering Wheel	X	Rear Disc Brakes
X	Antilock Brake System	X	AM/FM/CD		Other –

REMARKS:

RECORDED BY: _____ DATE: 05/24/05

APPROVED BY: _____

DATA SHEET 3
CURB WEIGHT WITH OPTIONS, NORMAL LOAD, VEHICLE MAXIMUM LOAD

VEHICLE MAKE/MODEL/BODY STYLE: 2005 BUICK LACROSSE PASSENGER CAR
VEHICLE NHTSA NO.: C50103 ; VIN: 2G4WC532051308692
LABORATORY: GENERAL TESTING LABORATORIES
TEST DATE: 05/24/05

Full Fluid Levels:
Fuel Full ; Coolant Full ; Other Fluids Full

Tire Pressure: LF 210 KPA (30 psi) LR 210 KPA (30 psi)
RF 210 KPA (30 psi) RR 210 KPA (30 psi)

A. MEASURED CURB WEIGHT WITH INSTALLED OPTIONS AND ACCESSORIES

LF 502 KG (1107 LB) LR 298 KG (656 LB)
RF 511 KG (1127 LB) RR 303 KG (667 LB)

Front Axle 1013 KG (2234 LB) Rear Axle 600 KG (1323 LB)

Total Vehicle 1613 KG (3557 LB)

B. VEHICLE NORMAL LOAD ON THE TIRE

(1) Seating Capacity (from Tire Information Placard) = 5

(2) Normal Load # of Occupants from FMVSS 110, Table I 3

Occupant Distribution: Front Seat- 2 Second Seat- 1
Third Seat - N/A Fourth Seat- N/A

(3) Total Normal Occupant Load 204 KG (450 LB)
(# of occupants x 68 KG per occupant)

(4) Measured Normal Load on Axles

LF 554 KG (1222 LB) LR 352 KG (776 LB)
RF 557 KG (1229 LB) RR 354 KG (780 LB)

Frt Axle 1112 KG (2451 LB) Rr Axle 706 KG (1556 LB)

Total Vehicle 1818 KG (4007 LB)

DATA SHEET 3 – CONTINUED

(5) Calculated Vehicle Normal Load on the Tire
Front Tires (measured front axle normal load/2) = 556 KG (1226 LB)
Rear Tires (measured rear axle normal load/2) = 353 KG (778 LB)

(6) High Speed Test Load from FMVSS 109 (S5.5)

	Front	Rear
Installed Tire Size	P225/60R16	P225/60R16
Max. Load Rating on Sidewall	730 KG(1609 LBS)	730 KG(1609 LBS)
High Speed Test Load (88% of sidewall max. load rating)	642 KG(1416 LBS)	642 KG(1416 LBS)
Optional Tire Size(s)	NONE	NONE
Max. Load Rating on Sidewall (Obtain from approved reference manual)	N/A	N/A
High Speed Test Load (88% of sidewall max. load rating)	N/A	N/A

Vehicle Normal Load on the Tire is not greater than the High Speed Test Load

		PASS/FAIL
Installed Tires; [(5) < (6)]	Front Tires	PASS
	Rear Tires	PASS
Optional Tires; [(5) < (6)]	Front Tires	N/A
	Rear Tires	N/A

C. MEASURED VEHICLE WITH FULL OCCUPANT LOAD

LF 579 KG (1276 LB) LR 411 KG (905 LB)
RF 566 KG (1248 LB) RR 398 KG (878 LB)

Front Axle 1145 KG (2524 LB) Rear Axle 809 KG (1783 LB)

Total Vehicle 1954 KG (4307 LB)

DATA SHEET 3 – CONTINUED

D. VEHICLE MAXIMUM LOAD ON THE TIRE

(1) Vehicle Capacity Weight (from Placard) 416 KG (917 LB)

(2) Seating Capacity(from Placard) 5

(3) Total Occupant Load (seating capacity x 68 KG) 340 KG (750 LB)

(4) Luggage/Cargo Load (Subtract (3) from (1)) 76 KG (167 LB)

(5) Measured Maximum Load on Axles

LF 576 KG (1270 LB) LR 447 KG (985 LB)
RF 568 KG (1252 LB) RR 439 KG (967 LB)

Frt Axle 1144 KG (2522 LB) Rr Axle 885 KG (1952 LB)

Total Vehicle 2029 KG (4474 LB)

(6) Calculated Vehicle Maximum Load on the Tire
Front Tires (measured front axle max. load/2)= 572 KG (1261 LB)
Rear Tires (measured rear axle max. load/2)= 443 KG (976 LB)

(7) Maximum Load Rating on Tire Sidewall (obtain data from B.(6))

	Front	Rear
Installed Tire Size	P225/60R16	P225/60R16
Max. Load Rating on Sidewall	730 KG (1609 LBS)	730 KG (1609 LBS)
Optional Tire Size(s)	N/A	N/A
Max Load Rating on Sidewall (obtain from approved reference manual)	N/A	N/A

Vehicle Maximum Load on the Tire is not greater than the Maximum Load Rating Marked on the Tire Sidewall

		PASS/FAIL
Installed Tires; [(6) < (7)]	Front Tires	PASS
	Rear Tires	PASS
Optional Tires; [(6) < (7)]	Front Tires	N/A
	Rear Tires	N/A

DATA SHEET 3 – CONTINUED

E. VEHICLE LOAD ON THE TIRE FOR OTHER DISPLAYED LOAD AND TIRE INFLATION PRESSURE CONDITIONS

(1) Condition Description (Load, Tire Size, Inflation Pressure)
Vehicle at maximum load of 2029 kg (4474 lbs) with P225/60R16 tire at 210 kPa (30 psi) on tire label.

(2) Condition Load on Tire/Axle – Maximum Load

LF	576 KG (1270 LB)	LR	447 KG (985 LB)
RF	568 KG (1252 LB)	RR	439 KG (967 LB)
Frt Axle	1144 KG (2522 LB)	Rr Axle	885 KG (1952 LB)

Total Vehicle 2029 KG (4474 LB)

(3) Load Rating of Tire at Recommended Inflation Pressure

	Front	Rear
Displayed Tire Size	P225/60R16	P225/60R16
Recommended Inflation Pressure	210 kPa (30 psi)	210 kPa (30 psi)
Tire Load Rating (obtained from 2005 Tire and Rim Association Yearbook)	670 KG (1477 LBS)	670 KG (1477 LBS)

Vehicle Load on the Tire is not greater than the Tire Load Rating at the Tire Recommended Inflation Pressure

	PASS/FAIL
Front Tires [(2) < (3)]	PASS
Rear Tires [(2) < (3)]	PASS

NOTE: Section E should be repeated for every different load/tire inflation pressure condition displayed.

REMARKS:

RECORDED BY: _____ DATE: 05/24/05

APPROVED BY: _____

DATA SHEET 4
TIRE INFORMATION LABEL OR PLACARD

VEHICLE MAKE/MODEL/BODY STYLE: 2005 BUICK LACROSSE PASSENGER CAR
VEHICLE NHTSA NO.: C50103 ; VIN: 2G4WC532051308692
LABORATORY: GENERAL TESTING LABORATORIES
TEST DATE: 05/24/05

PASS/FAIL

A. Description of Placard: Self Adhesive decal – Red, Black Yellow and White — Pass

B. Description of Placard Location: Driver's "B" pillar — Pass

Permanently Affixed (X) YES ( ) NO

C. Enter Information from Placard:

Vehicle Capacity Weight - 416 KG (917 LBS)

Designated Seating Capacity (DSC) - 5 — Pass

Expressed In—
(1) Total No. of Occupants (X) Yes ( ) No
(2) Terms of Occupants for Each Seat Location (X) YES ( ) NO — Pass

Manufacturer's Recommended Cold Tire Inflation Pressure for Maximum Load Vehicle Weight:

FRONT - 210 kPa (30 psi) REAR - 210 kPa (30 psi)

All Other Recommended Inflation Pressures:
None

All Other Recommended Loading Conditions:
None

Manufacturer's Recommended Size Designation:
P225/60R16

All Other Manufacturer's Recommended Size Designation:
NONE

DATA CORRECTLY DISPLAYED — Pass

DATA SHEET 4 continued

PASS/FAIL

D. For Every Inflation Pressure Listed Above Indicate:

(1)	Less than Maximum?	(YES/NO)	Yes	Pass
(2)	Loading Condition Stated?	(YES/NO)	Yes	Pass

DATA INDICATES COMPLIANCE (X) YES ( ) NO

REMARKS:

RECORDED BY: L. Garand DATE: 05/24/05

APPROVED BY: D. Mensch

DATA SHEET 5
VEHICLE TIRE DATA

VEHICLE MAKE/MODEL/BODY STYLE: 2005 BUICK LACROSSE PASSENGER CAR
VEHICLE NHTSA NO.: C50103 ; VIN: 2G4WC532051308692
LABORATORY: GENERAL TESTING LABORATORIES
TEST DATE: 05/24/05

All tires on the vehicle are the same size: (Yes/No) Yes

INFORMATION FROM TIRE SIDEWALL:

	Front Axle (R.F. Tire)	Rear Axle (L.R. Tire)	Spare
Tire Size Designation	P225/60R16	P225/60R16	T125/70D16
Tire Load Index/Speed Symbol	97S	97S	96M
Maximum Inflation Pressure	300 kPa (44 psi)	300 kPa (44 psi)	420 kPa(60psi)
Maximum Load Rating	730 KG (1609 LBS)	730 KG(1609 LBS)	710KG(1565 LB)
Mfr. Name or Brand & Code	GOODYEAR	GOODYEAR	GOODYEAR
Tube or Tubeless	Tubeless	Tubeless	Tubeless
Treadwear/Traction/Temp. Grades	460-A-B	460-A-B	N/A
Sidewall (Plies & Composition)	1 polyester	1 polyester	2 nylon
Tread (Plies & Composition)	1 polyester 2 steel	1 polyester 2 steel	2 nylon

Serial Number:
Left Front - DOT M6XO B3DR 1205
Right Front - DOT M6XO B3DR 1205
Left Rear - DOT M6XO B3DR 1205
Right Rear - DOT M6XO B3DR 1205
Spare - DOT PCW6 H9WP 0905

Tires have "DOT" markings: (X) YES ( ) NO

REMARKS:

RECORDED BY: _____ DATE: 05/25/05

APPROVED BY: _____

DATA SHEET 6
RIM DIMENSIONS

VEHICLE MAKE/MODEL/BODY STYLE: 2005 BUICK LACROSSE PASSENGER CAR
VEHICLE NHTSA NO.: C50103 ;VIN: 2G4WC532051308692
LABORATORY: GENERAL TESTING LABORATORIES
TEST DATE: 05/25/05

A. Rim Size & Flange

	Tire Size	Specfd. Rims	Measured Width of Rims	Measured Height of Rims	PASS/ FAIL
Right Front:	P225/60R16	6.0 to 8.0J	6.5"	16"	Pass
Left Rear:	P225/60R16	6.0 to 8.0J	6.5"	16"	Pass

REFERENCE USED: 2005 Tire and Rim Association Yearbook

B. Trade Stamps, Marks, Symbols: T-DOT, RNE, 16 x 6.5J, 15898

Rim Manufacturer's Name or Label: FUMAGALLI

Other Rim/Wheel Marking: 05,02,11, MADE IN BRAZIL, F1

Rim Inspection Comments: None

Tire Inspection Comments: None

Wheel/Rim Construction (i.e., welded, one piece, cast, deep dish, etc.)
Two piece welded steel

DATA INDICATES COMPLIANCE: (X) YES ( ) NO

REMARKS:

RECORDED BY: [signature] DATE: 05/25/05

APPROVED BY: [signature]

DATA SHEET 7
DEFLATED TIRE RETENTION

VEHICLE MAKE/MODEL/BODY STYLE: 2005 BUICK LACROSSE PASSENGER CAR
VEHICLE NHTSA NO.: C50103 ;VIN: 2G4WC532051308692
LABORATORY: GENERAL TESTING LABORATORIES
TEST DATE: 05/26/05

Tire Pressures: (cold)
LF 210 kPa (30 psi) LR 210 kPa (30 psi)
RF 210 kPa (30 psi) RR 210 kPa (30 psi)

Test Weight (should be the same weight and distribution recorded on Data Sheet 3 Section D.5.

LF 579 kg (1276 lb) LR 446 kg (983 lb)
RF 567 kg (1250 lb) RR 437 kg (963 lb)
Front Axle 1146 kg (2526 lb) Rear Axle 883 kg (1946 lb)

TOTAL VEHICLE 2028 kg (4472 lb)

Description of Weight Distribution: Salt bags in front passenger seat, rear seat and trunk.

A. Retention Test Left Front:

Odometer (START): 159 km (99 miles) Fuel Level: Full

Tire Pressure: 210 kPa (30 psi)

Ambient Temperature: 26.6 degrees C (80 F)

Wind Speed: 9.6 kmph (6.0 mph)

Size of Deflation Opening: 2.5 cm (1.0 in.) in diameter

Speed: 96.9 kmph (60.2 mph)

Deceleration Rate: 1.82 – 2.13 mpsps avg. (6-7 fpsps)

Distance Traveled After Initial Release of Air: 253 m (831 ft)

Distance of Deviation: < .3 m (<1 ft)

Description of Bead Separation, Outboard: None

Description of Bead Separation, Inboard: None

DATA SHEET 7 continued
DEFLATED TIRE RETENTION

B. Retention Test Right Rear:

Odometer (START): 164 km (102 miles) Fuel Level: Full

Tire Pressure: 210 kPa (30 psi)

Ambient Temperature: 22.7 degrees C (73 F)

Wind Speed: 4.8 kmph (3 mph)

Size of Deflation Opening: 2.5 cm (1.0 in.) in diameter

Speed: 96.3 kmph (59.9 mph)

Deceleration Rate: 2.13 - 2.43 mpsps avg. (7-8 fpsps)

Distance Traveled After Initial Release of Air: 206 m (677 ft)

Distance of Deviation: <.3 m (<1 ft)

Description of Bead Separation, Outboard: None

Description of Bead Separation, Inboard: None
NOTE: No rotation of tire on rim

C. REMARKS: (Stability, Control, Suspension, etc.)
Good control, normal stopping

	PASS/FAIL
Left Front	Pass
Right Rear	Pass

DATA INDICATES COMPLIANCE: (X) YES ( ) NO

REMARKS:

RECORDED BY: [signature] DATE: 05/31/05

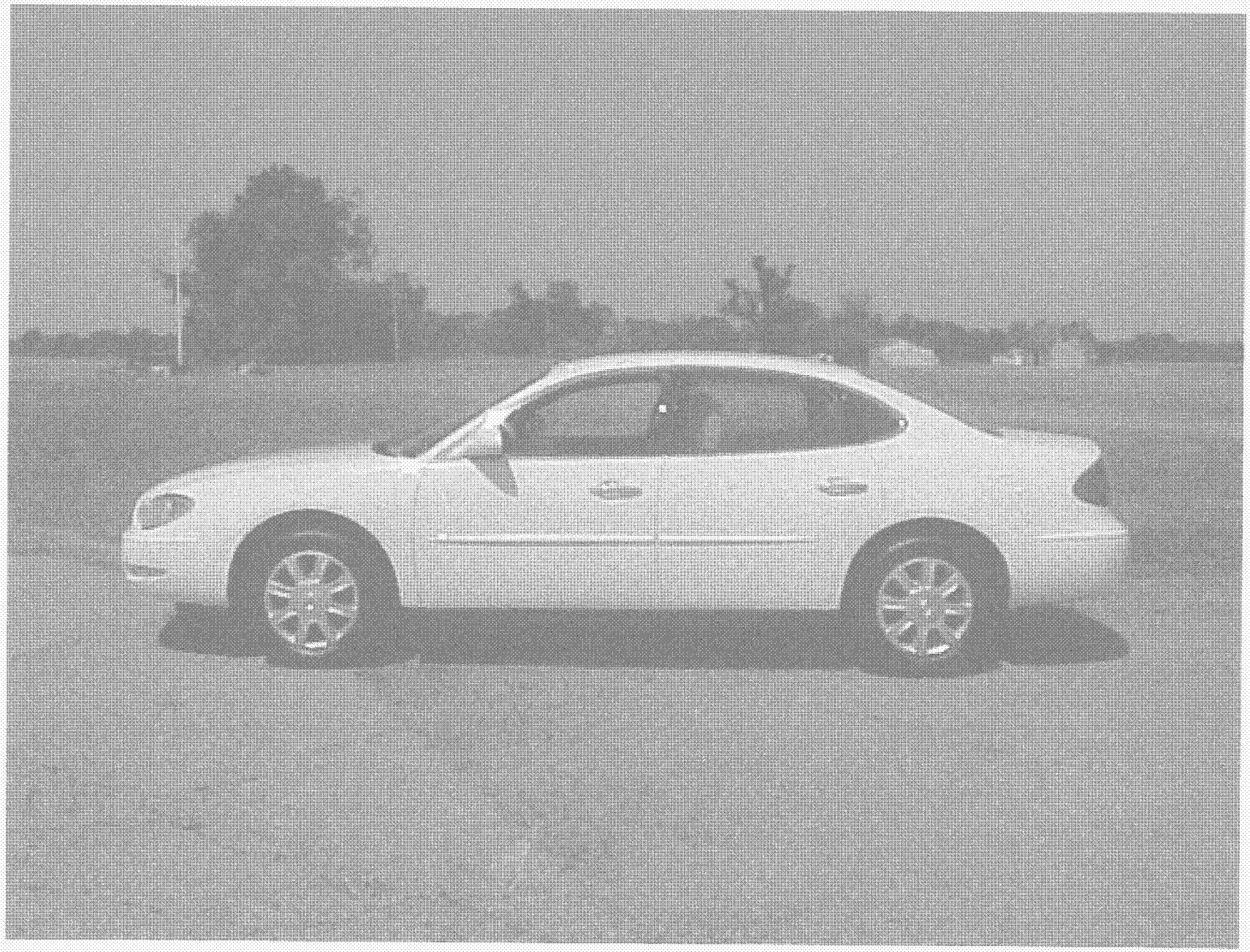
APPROVED BY: [signature]

SECTION 4
INSTRUMENTATION AND EQUIPMENT LIST

TABLE 1 - INSTRUMENTATION & EQUIPMENT LIST

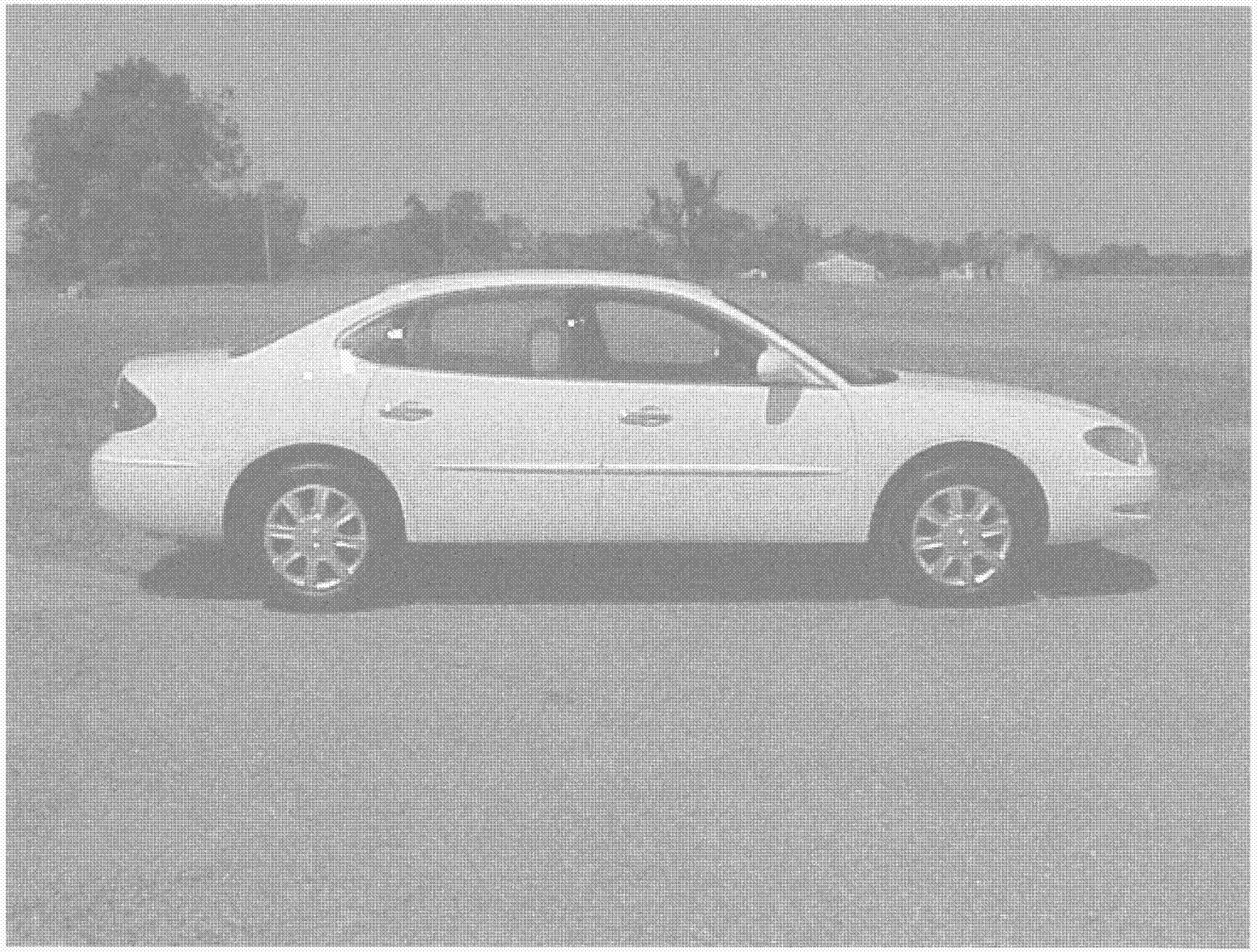
EQUIPMENT	DESCRIPTION	MODEL/ SERIAL NO.	CAL. DATE	NEXT CAL. DATE
PAD SCALES	#1 199744LF #2 199744RF #3 199744LR #4 199744RR	199744LF 199744RF 199744LR 19974RR	07/04 07/04 07/04 07/04	07/05 07/05 07/05 07/05
PRESSURE TRANSDUCER	BLH	D-HF #65409	BEFORE USE	BEFORE USE
SURFACE LEVEL	STANLEY	641186	05/05	05/06
DATA ACQUISITION COMPUTER	GEO1	N/A	BEFORE USE	BEFORE USE
ANEMOMETER	HASTINGS	RM-1	05/05	05/06
SLIP RING ASSEMBLY	GTL	N/A	BEFORE USE	BEFORE USE
DECELEROMETER	GTL	N/A	BEFORE USE	BEFORE USE
INCLINOMETER	STARRETT	002	05/05	05/06
VBOX	RACELOGIC	VB2 #004337	BEFORE USE	BEFORE USE

SECTION 5
PHOTOGRAPHS



2005 BUICK LACROSSE
NHTSA NO. C50103
FMVSS NO. 110

FIGURE 5.1
LEFT SIDE VIEW OF VEHICLE

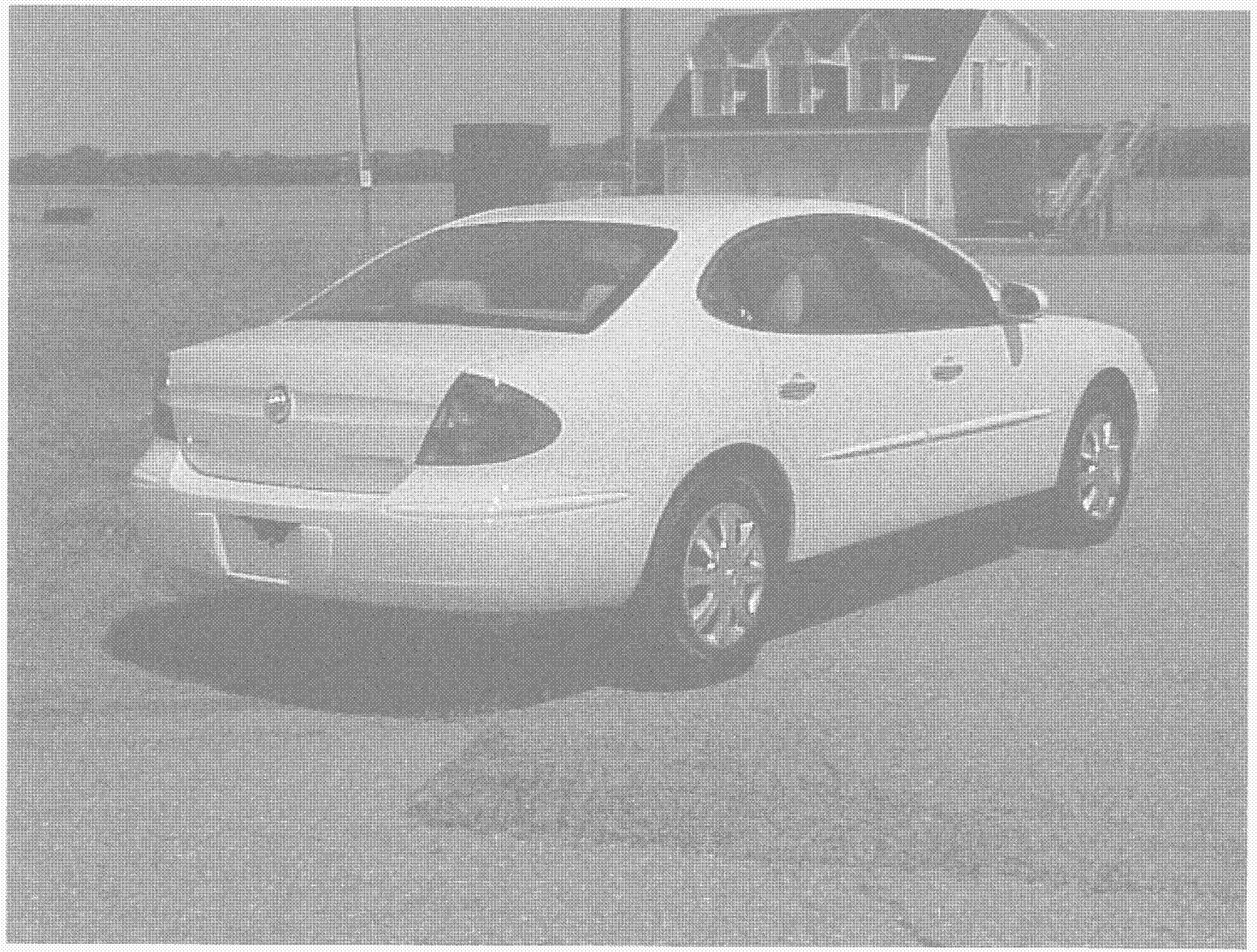


2005 BUICK LACROSSE
NHTSA NO. C50103
FMVSS NO. 110

FIGURE 5.2
RIGHT SIDE VIEW OF VEHICLE

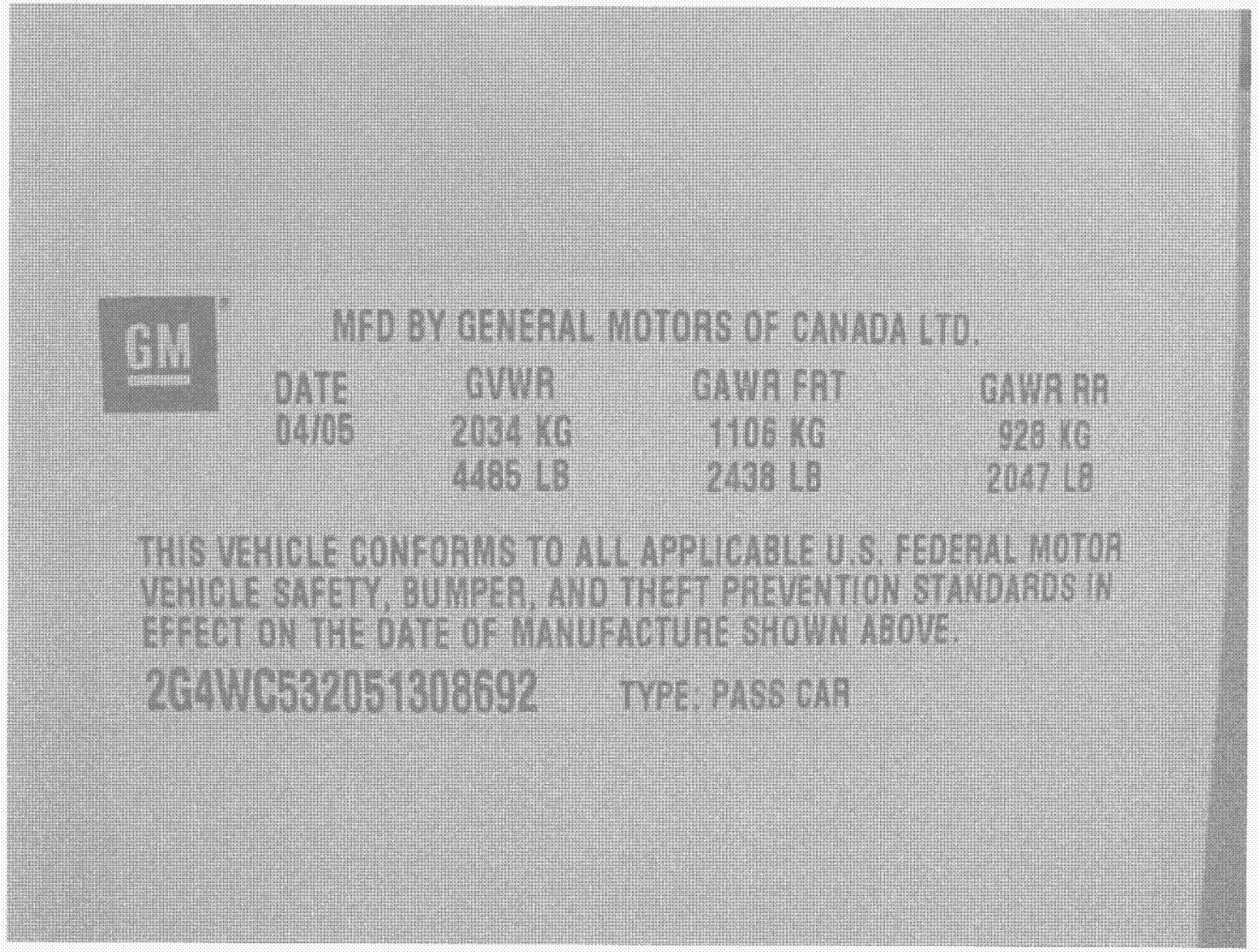
2005 BUICK LACROSSE
NHTSA NO. C50103
FMVSS NO. 110

FIGURE 5.3
¾ FRONTAL VIEW FROM LEFT SIDE OF VEHICLE



2005 BUICK LACROSSE
NHTSA NO. C50103
FMVSS NO. 110

FIGURE 5.4
¾ REAR VIEW FROM RIGHT SIDE OF VEHICLE



2005 BUICK LACROSSE
NHTSA NO. C50103
FMVSS NO. 110

FIGURE 5.5
VEHICLE CERTIFICATION LABEL

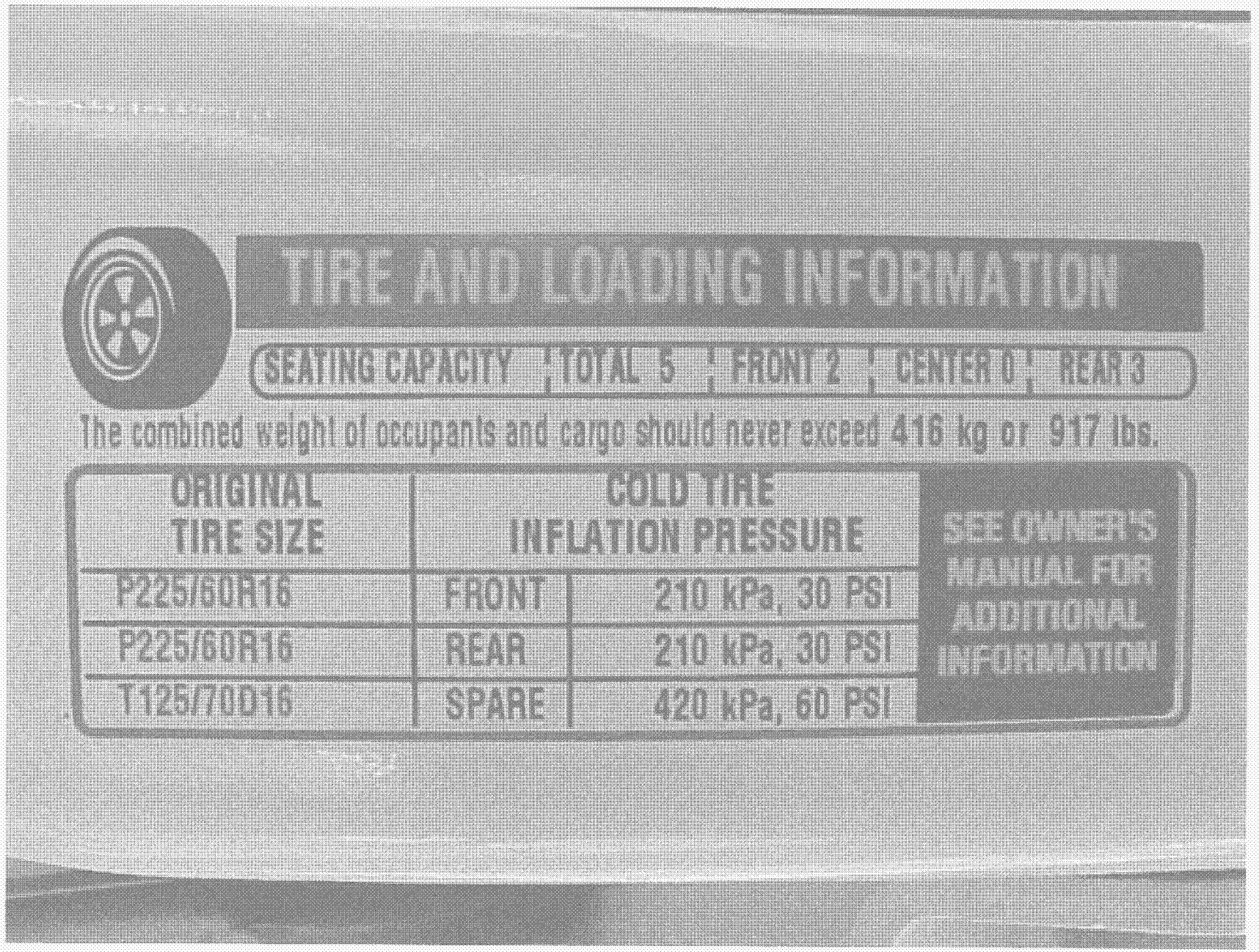


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FIGURE 5.6
VEHICLE TIRE INFORMATION LABEL

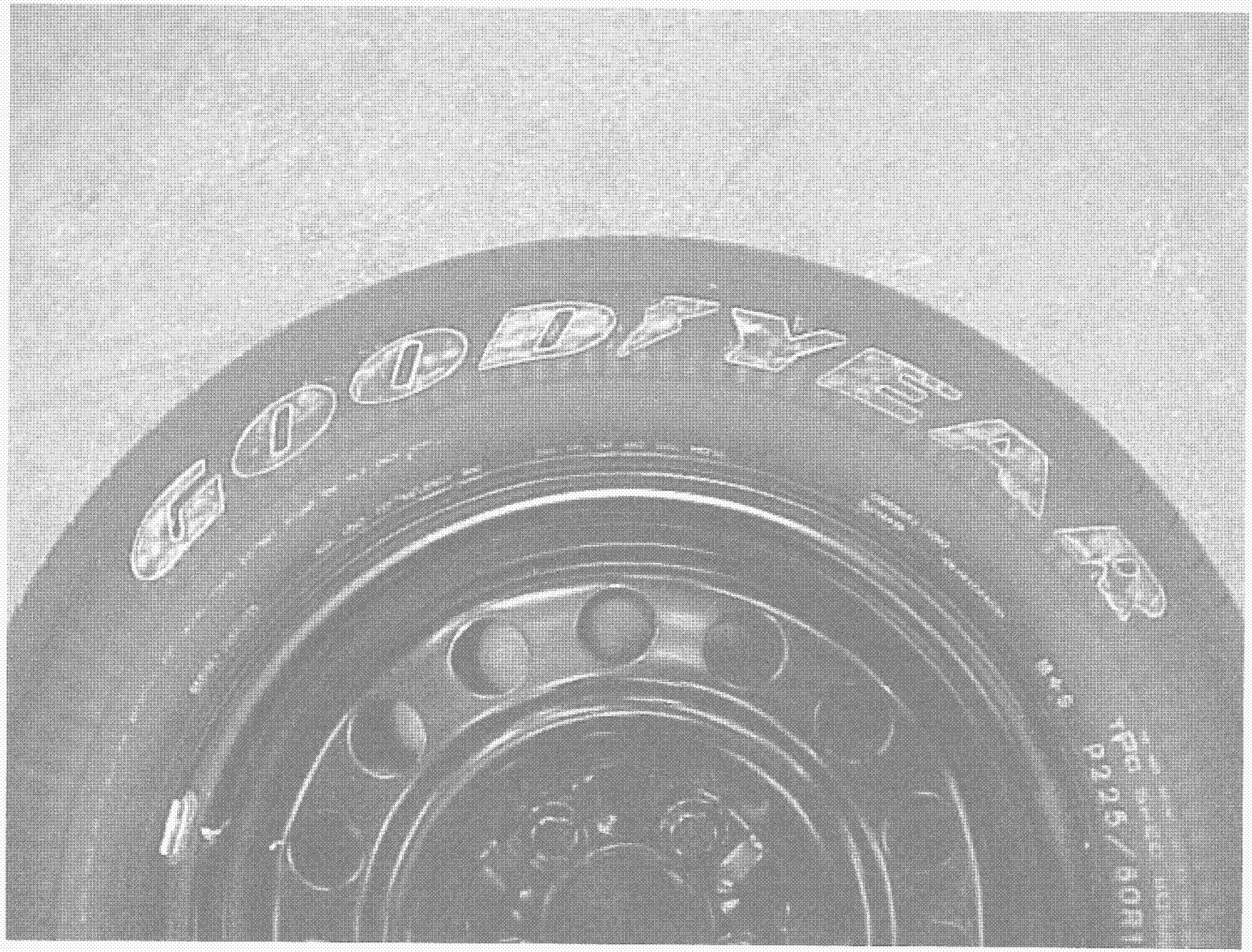

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FIGURE 5.7
TIRE SHOWING MANUFACTURER

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FIGURE 5.8
TIRE SHOWING SIZE, LOAD INDEX AND SPEED SYMBOL

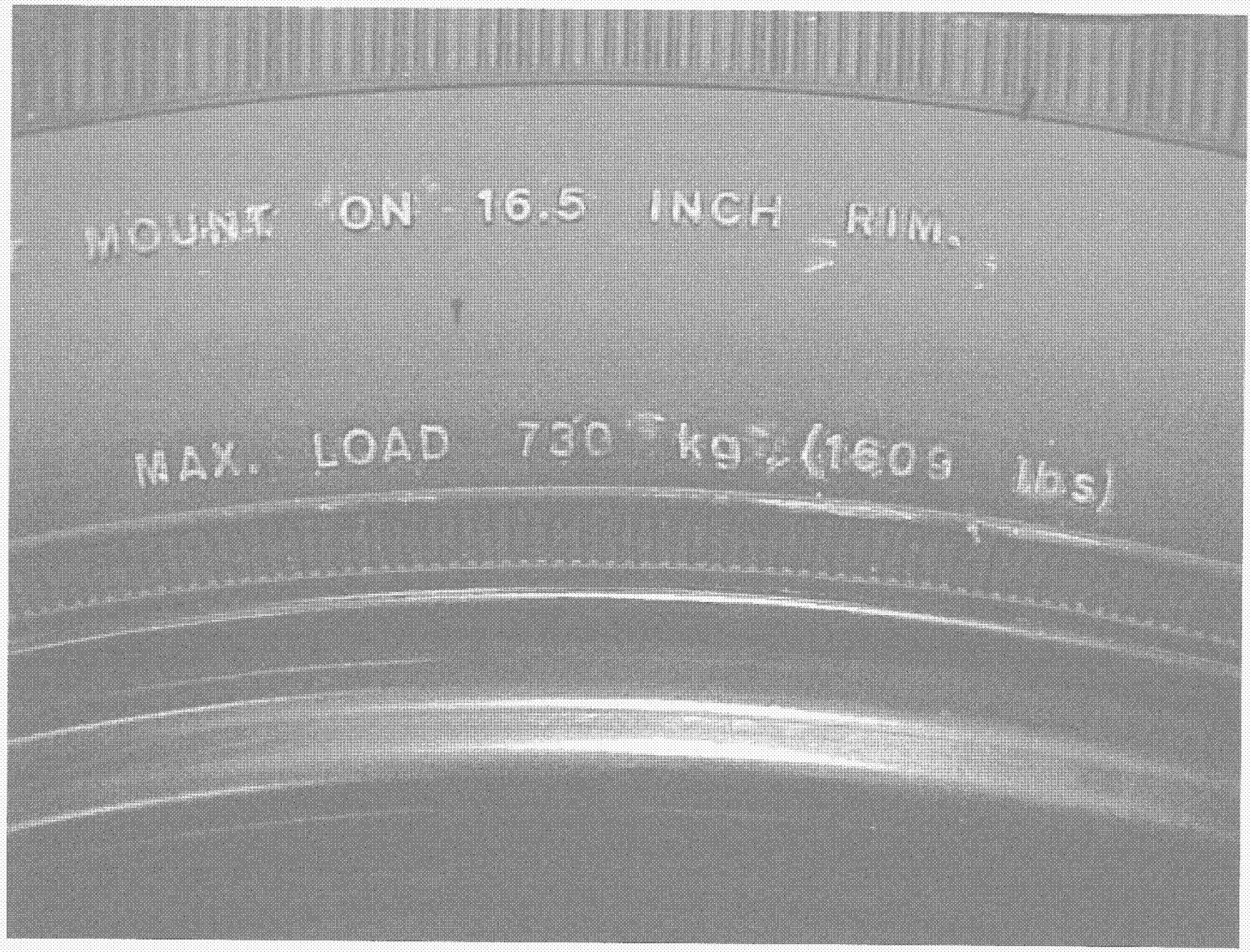

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FIGURE 5.9
TIRE SHOWING MAX LOAD

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FIGURE 5.10
TIRE SHOWING MAX INFLATION PRESSURE

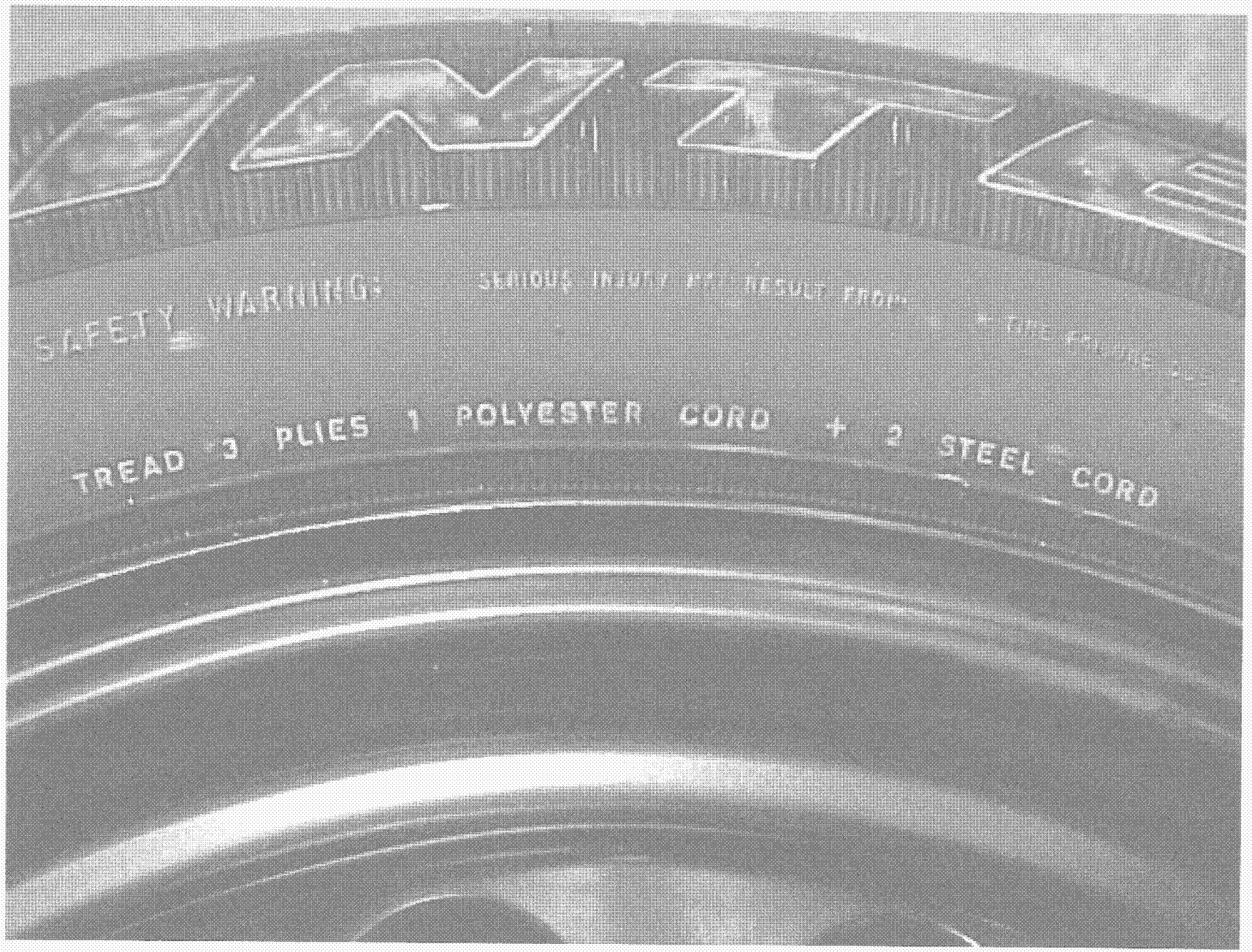

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FIGURE 5.11
TIRE SHOWING TREAD CONSTRUCTION

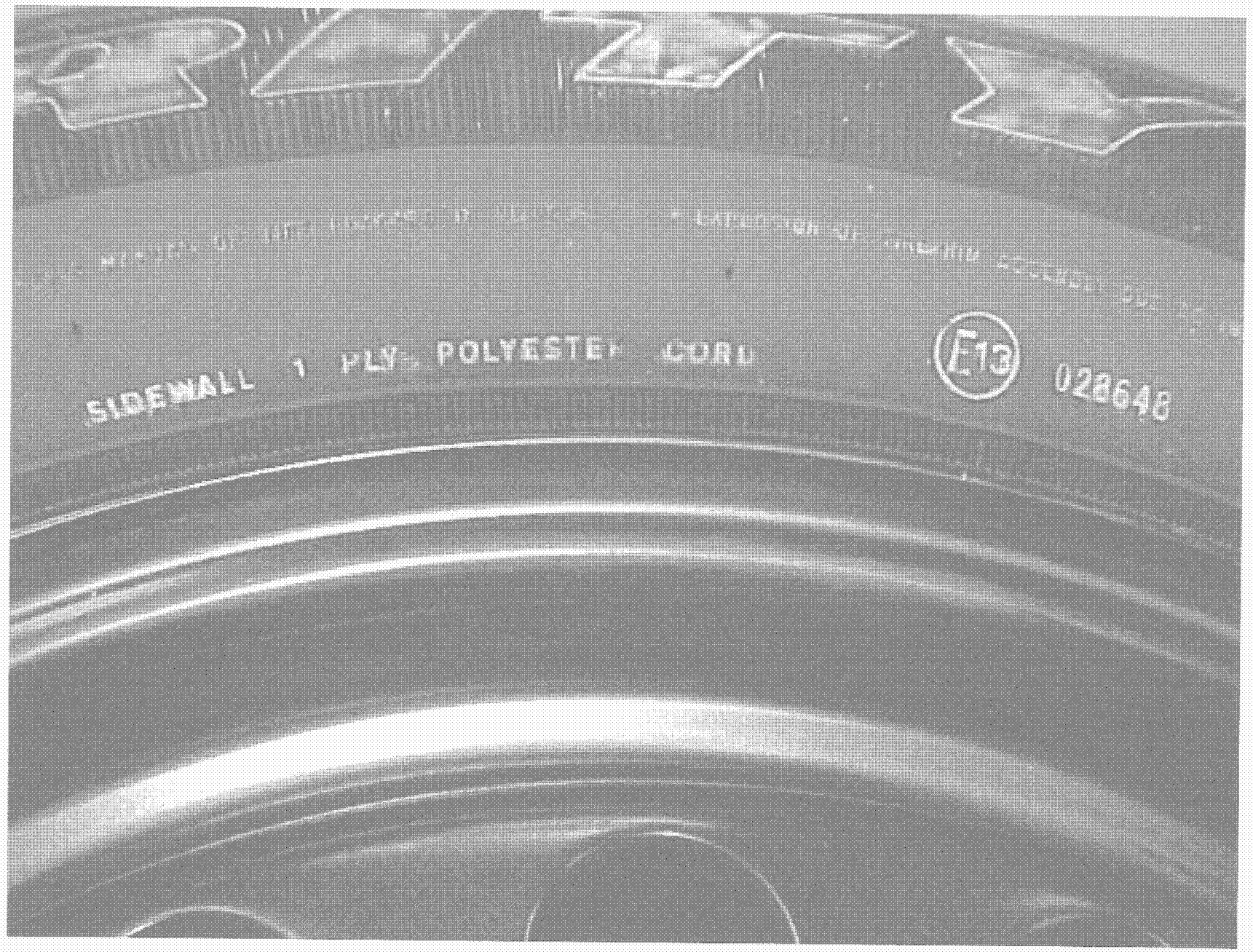

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FIGURE 5.12
TIRE SHOWING SIDEWALL CONSTRUCTION

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FIGURE 5.13
TIRE SHOWING TREADWEAR , TRACTION AND TEMPERATURE

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FIGURE 5.14
TIRE SHOWING SERIAL NUMBER

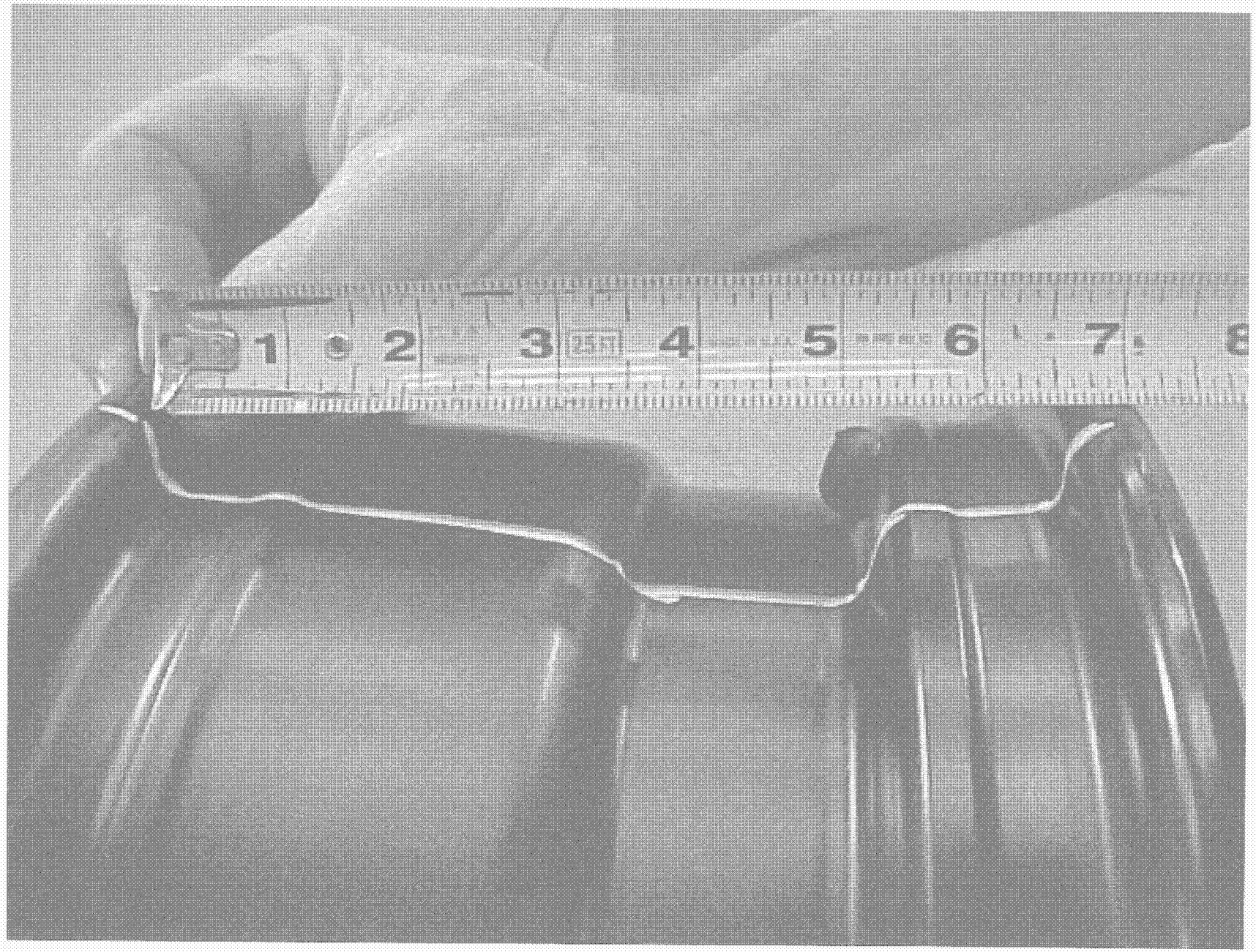

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FIGURE 5.15
RIM CONTOUR FOR FULL WIDTH OF RIM
CROSS SECTION

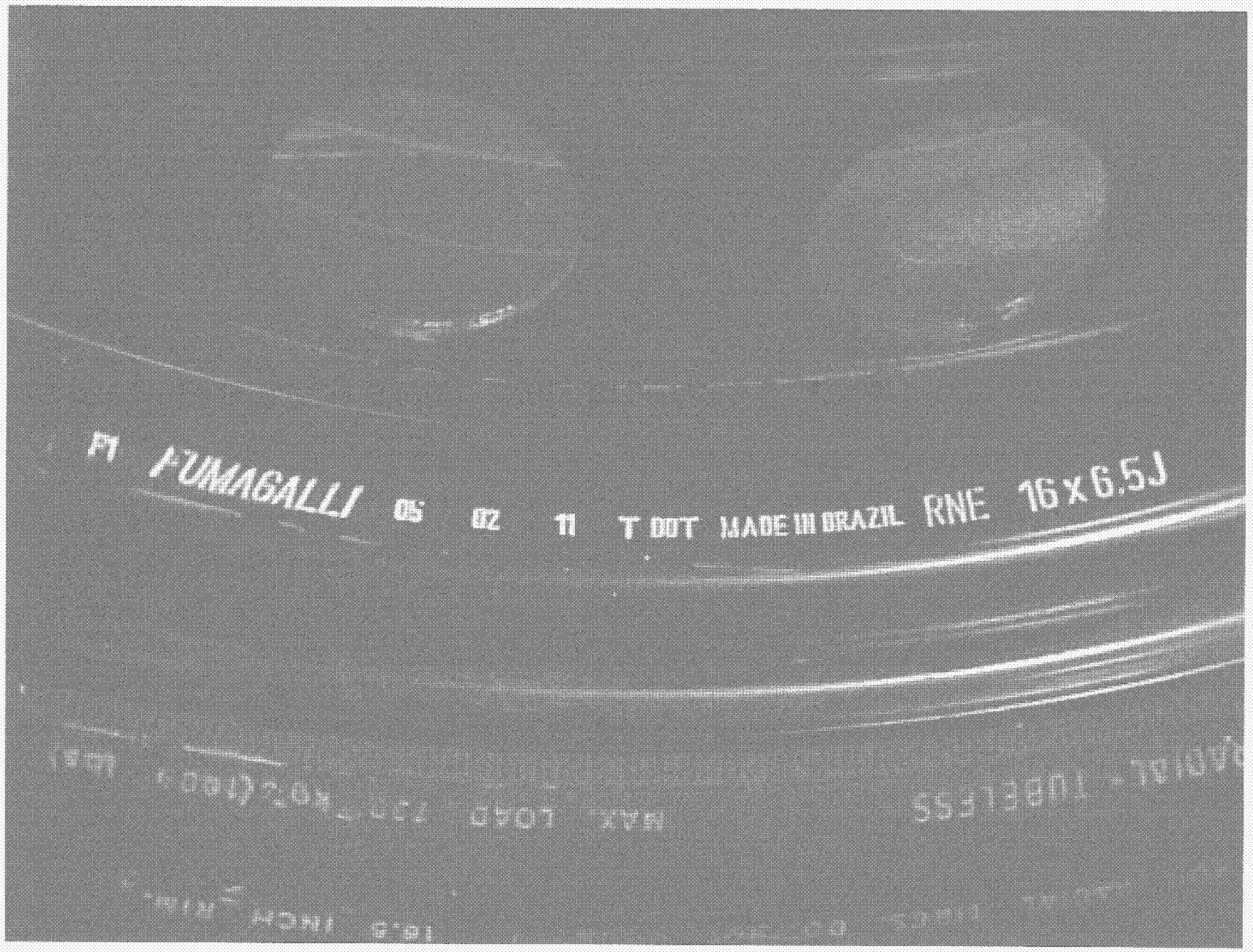

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FIGURE 5.16
RIM SHOWING MANUFACTURER, DATE, DOT AND SIZE

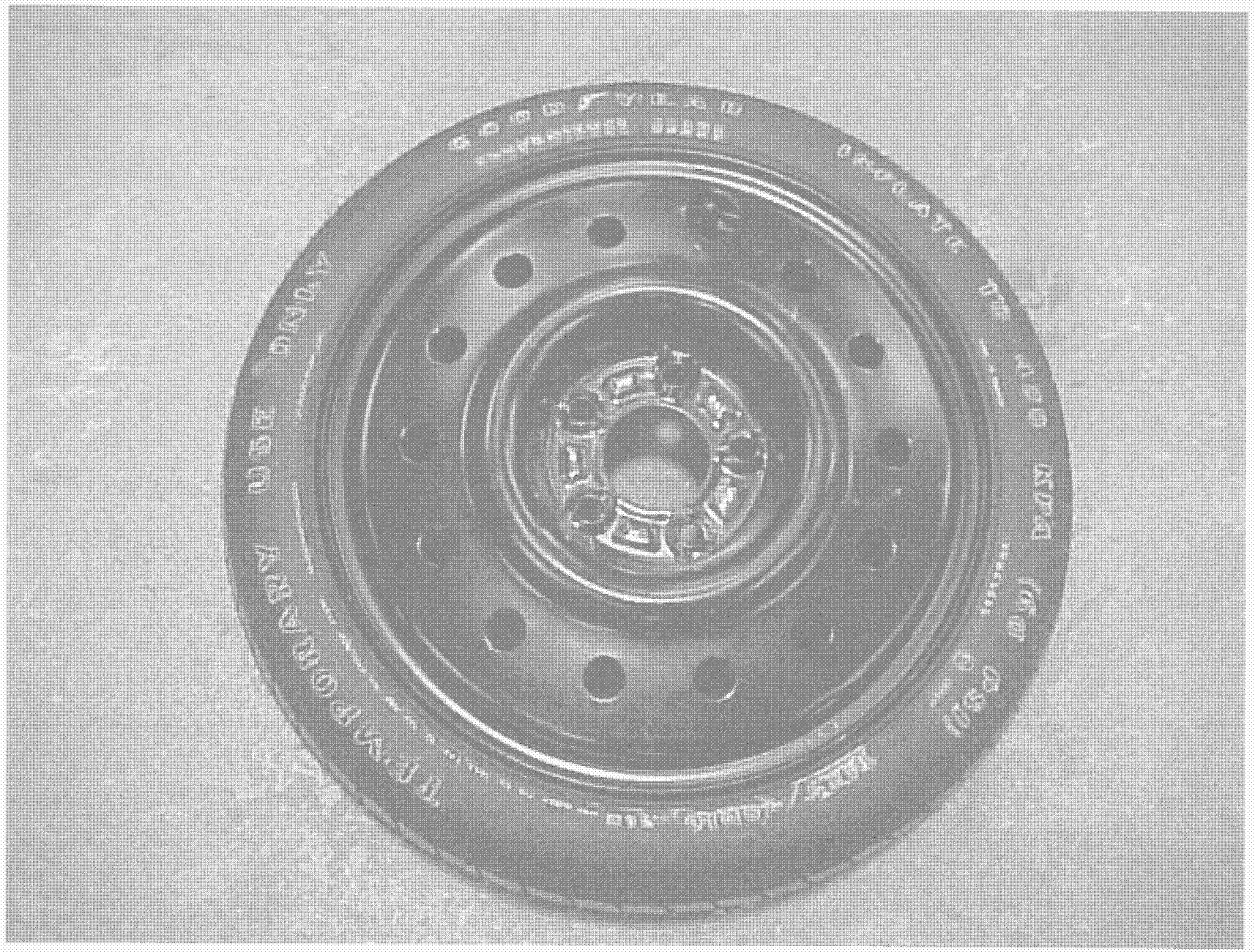

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FIGURE 5.17
SPARE TIRE AND RIM ASSEMBLY

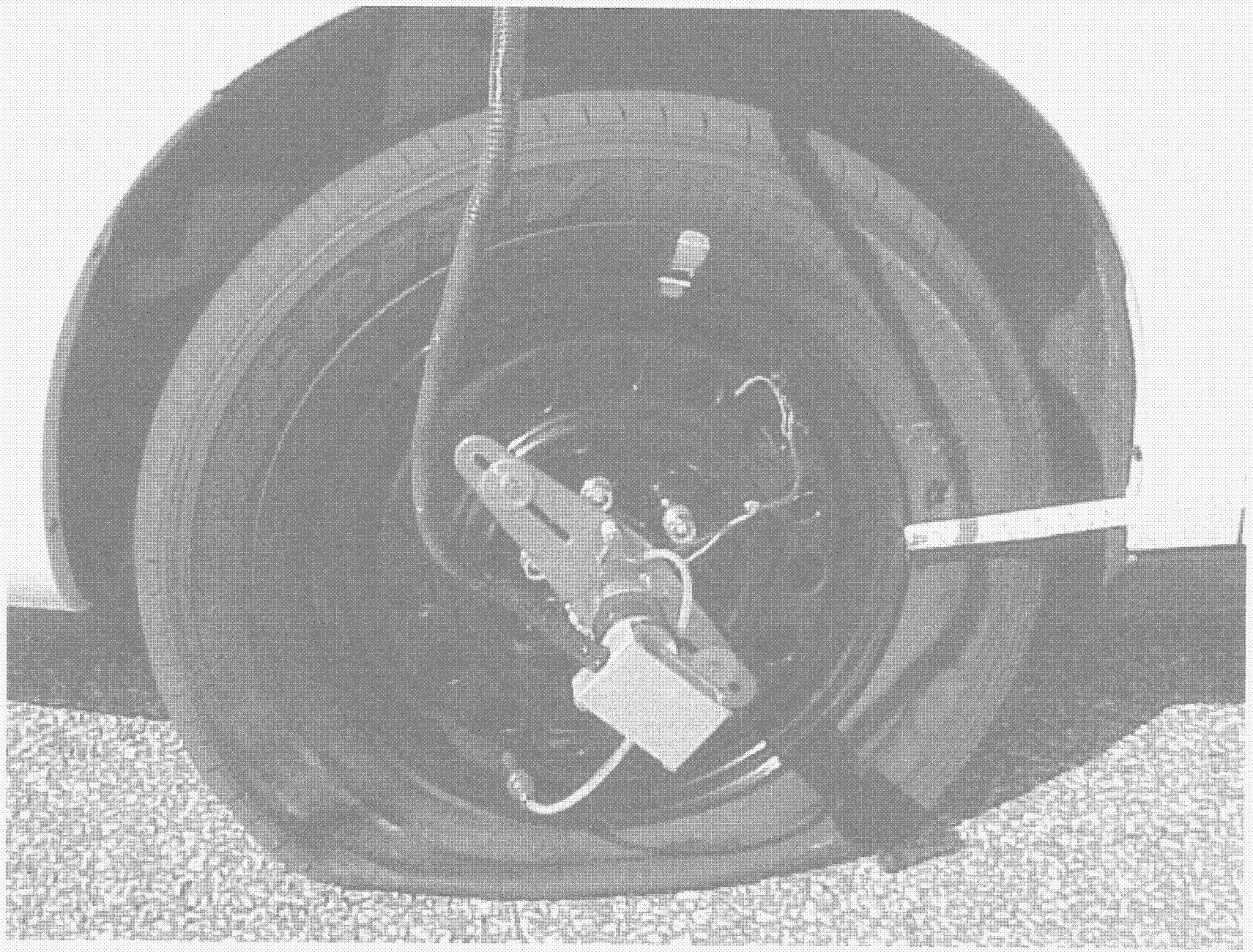

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FIGURE 5.18
OUTSIDE VIEW OF LEFT FRONT TIRE AFTER BLOW OUT

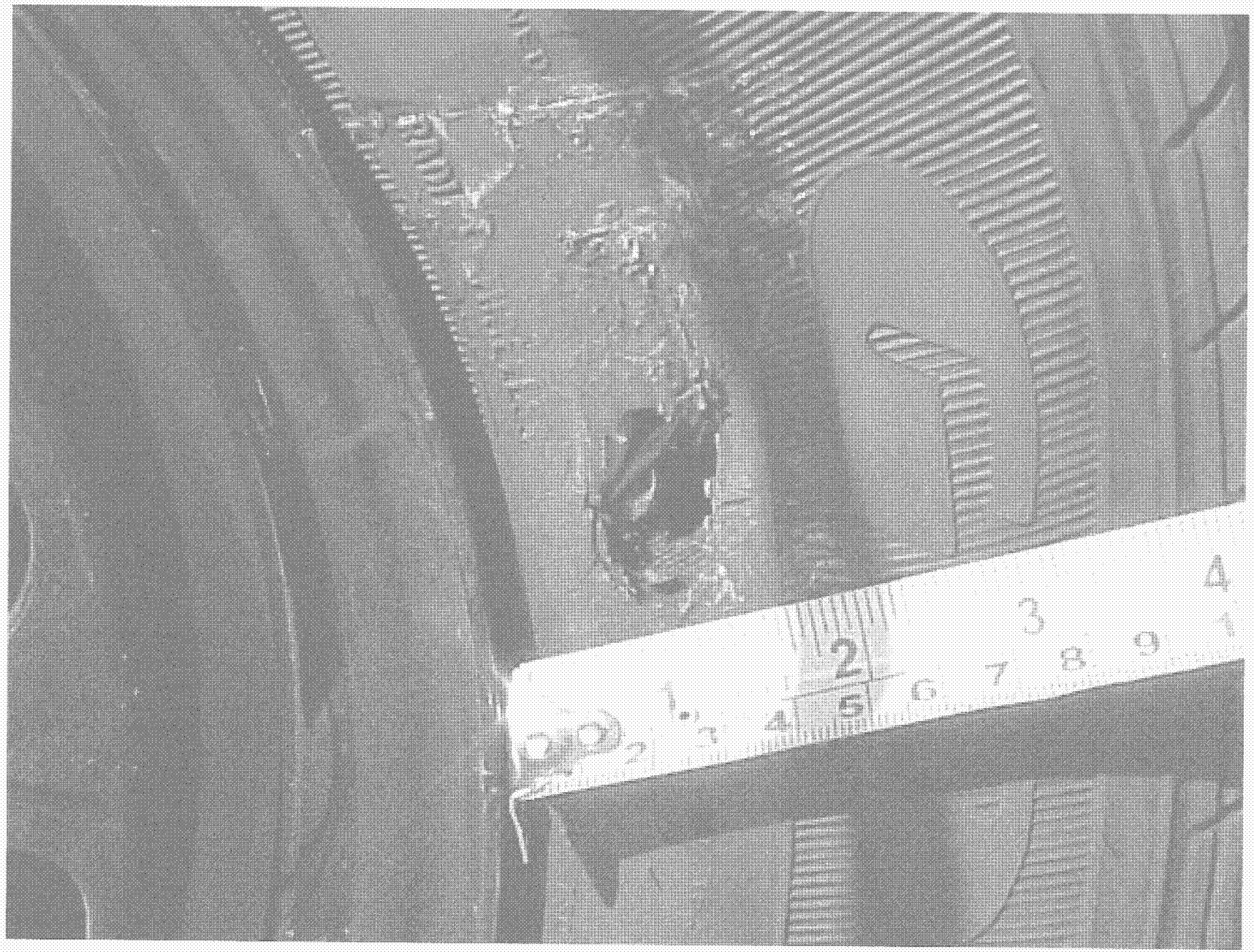

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FIGURE 5.19
CLOSE-UP OF BLOWN-OUT TIRE WITH RULER
NEXT TO HOLE

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FIGURE 5.20
INSIDE VIEW OF LEFT FRONT TIRE AFTER BLOW-OUT

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FIGURE 5.21
OUTSIDE VIEW OF RIGHT REAR TIRE AFTER BLOW-OUT

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FIGURE 5.22
CLOSE-UP OF BLOWN-OUT TIRE WITH RULER
NEXT TO HOLE

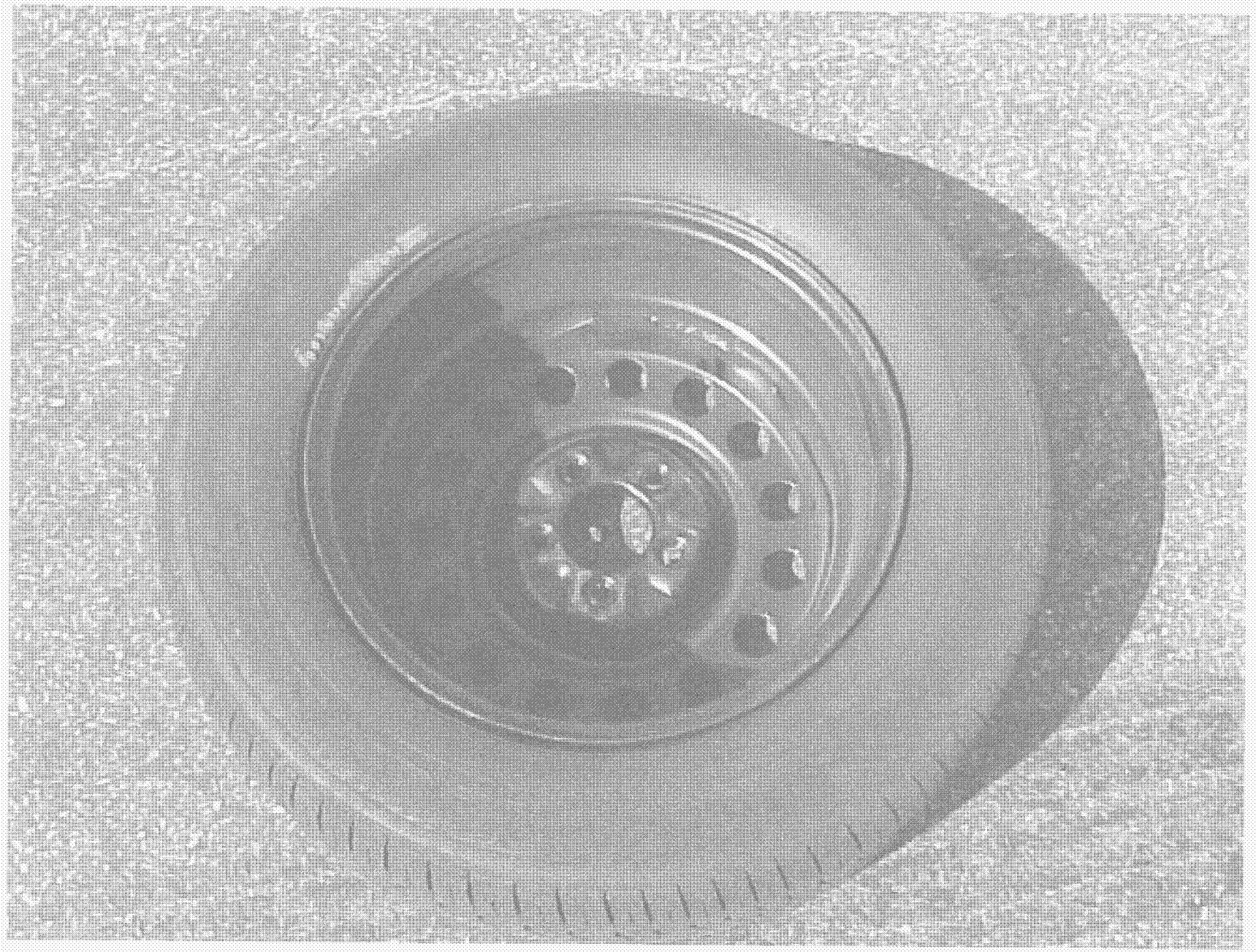

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FIGURE 5.23
INSIDE VIEW OF RIGHT REAR TIRE AFTER BLOW-OUT

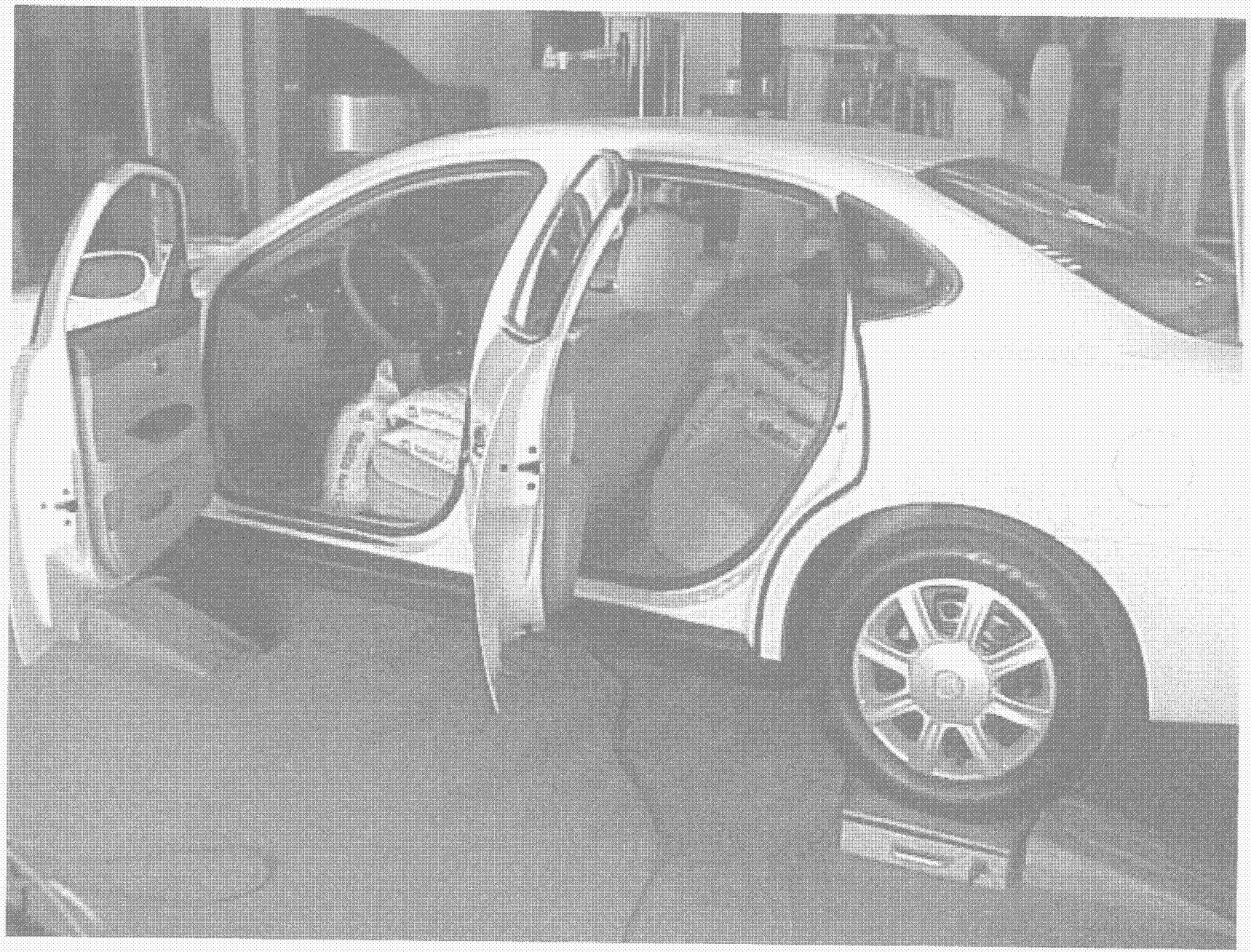

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FIGURE 5.24
VEHICLE ON SCALES, BALLASTED FOR NORMAL LOAD

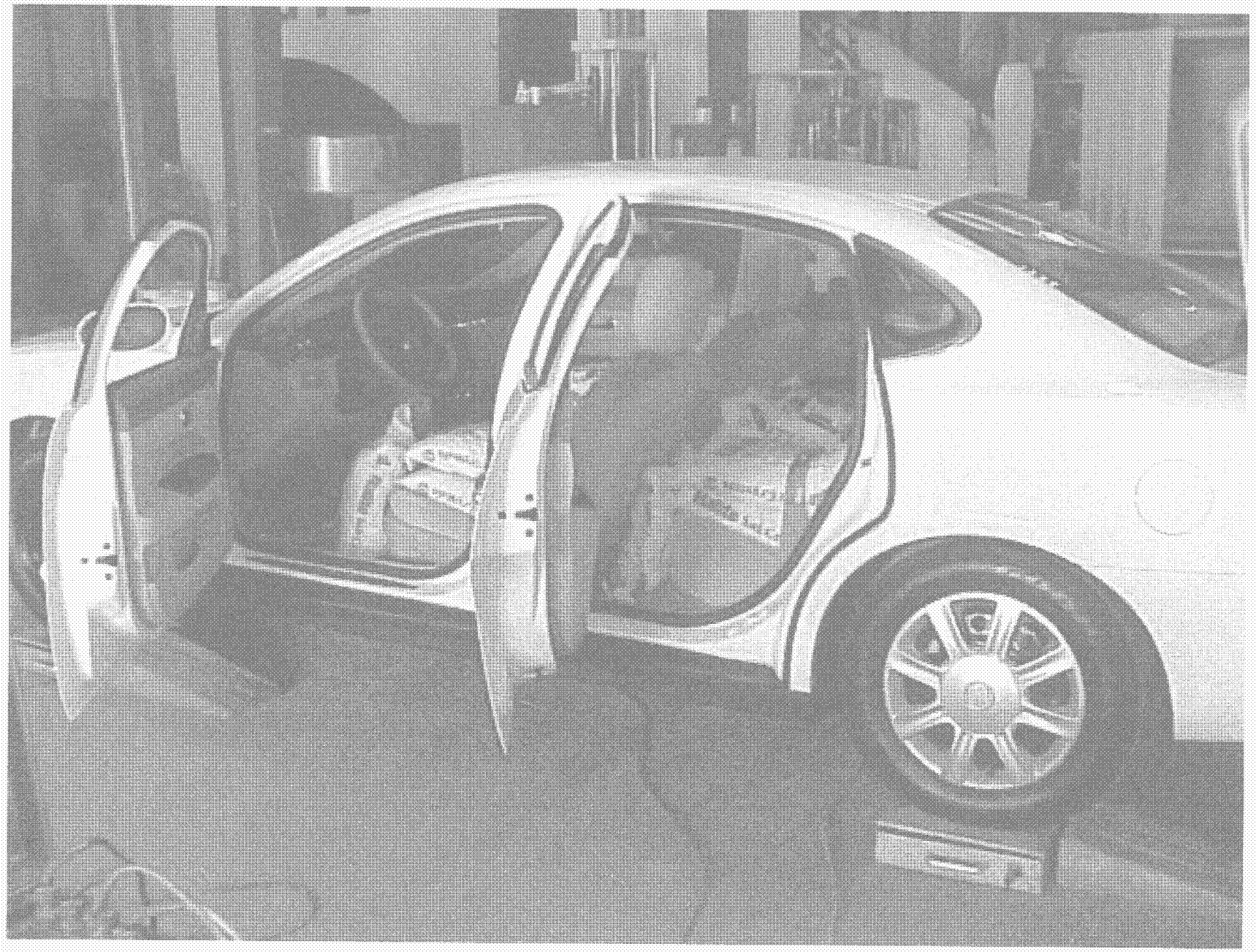

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FIGURE 5.25
VEHICLE BALLASTED FOR MAXIMUM LOAD

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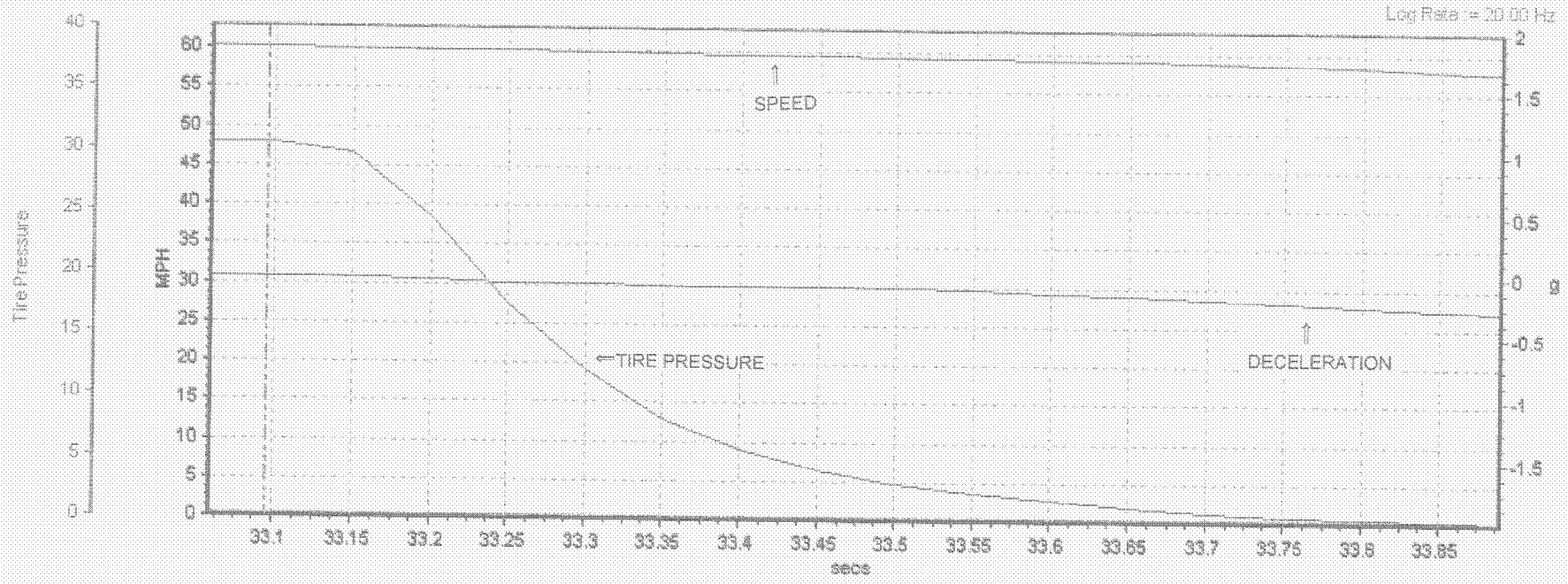
FIGURE 5.26
VEHICLE BALLASTED FOR CARGO

SECTION 6
TEST PLOTS

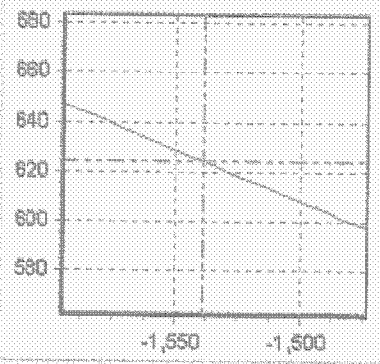
Speed VS Time

File Edit Smoothing Graph Type Select Run Graph Properties Start/Finish & Splits

Buick Lacrosse, C50103, Right Rear 110 BLOW-OUT

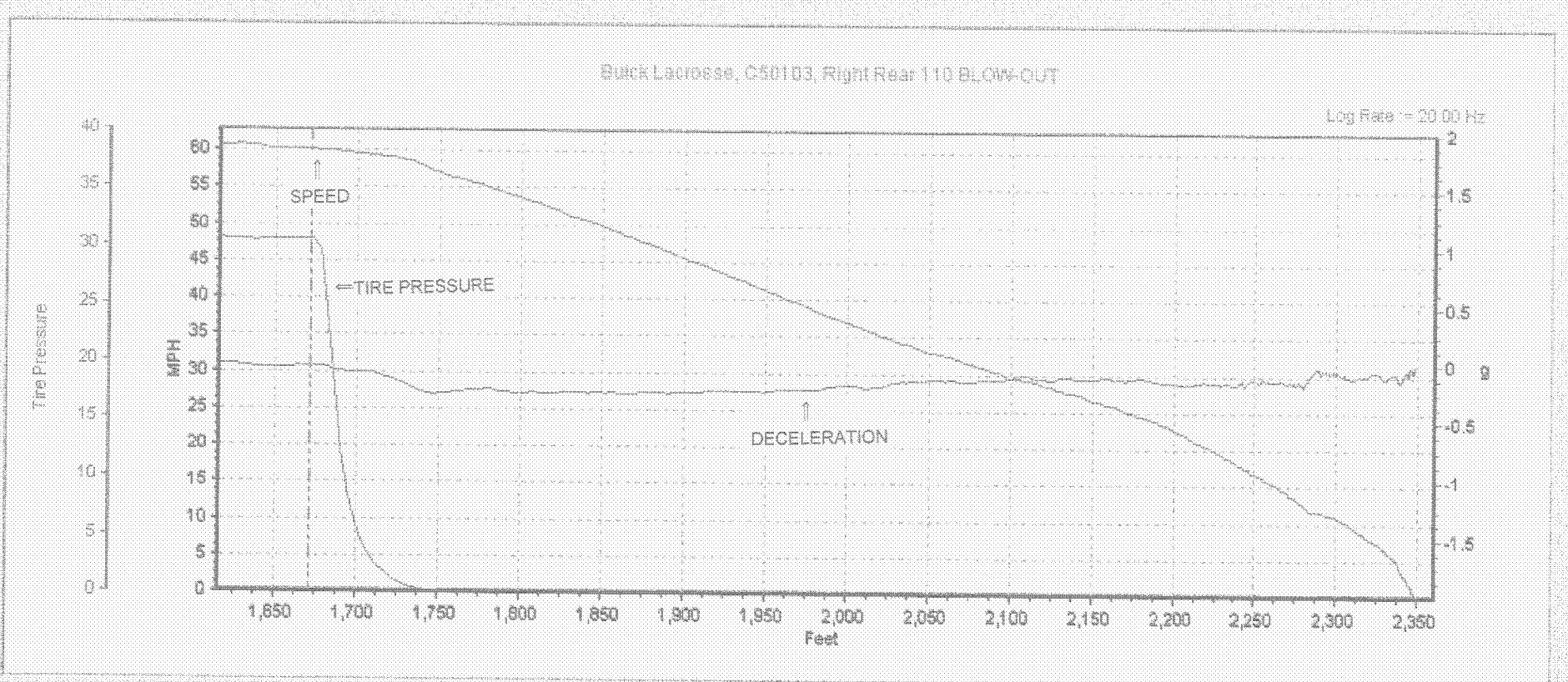


	Buick Lacrosse, C50103, Right Rear 110 BLOW-OUT
Run Time	0 minute 55.10 secs
Cursor (secs)	33.09
Speed (MPH)	59.97
(°F)	74.535
(PSI)	30.538
Longitudinal Acceleration (g)	-0.038
Height (Fset)	-85.850
Vertical Velocity (MPH)	0.000
Satellites (Number of)	8

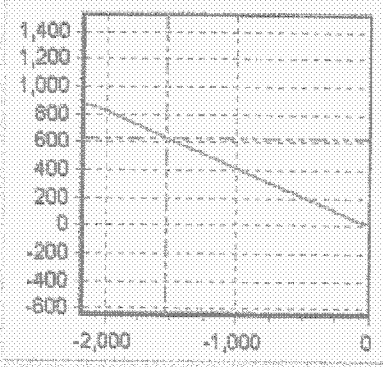


Speed Vs Distance Graph

File Edit Smoothing Graph Type Select Run Graph Properties Start/Finish & Splits

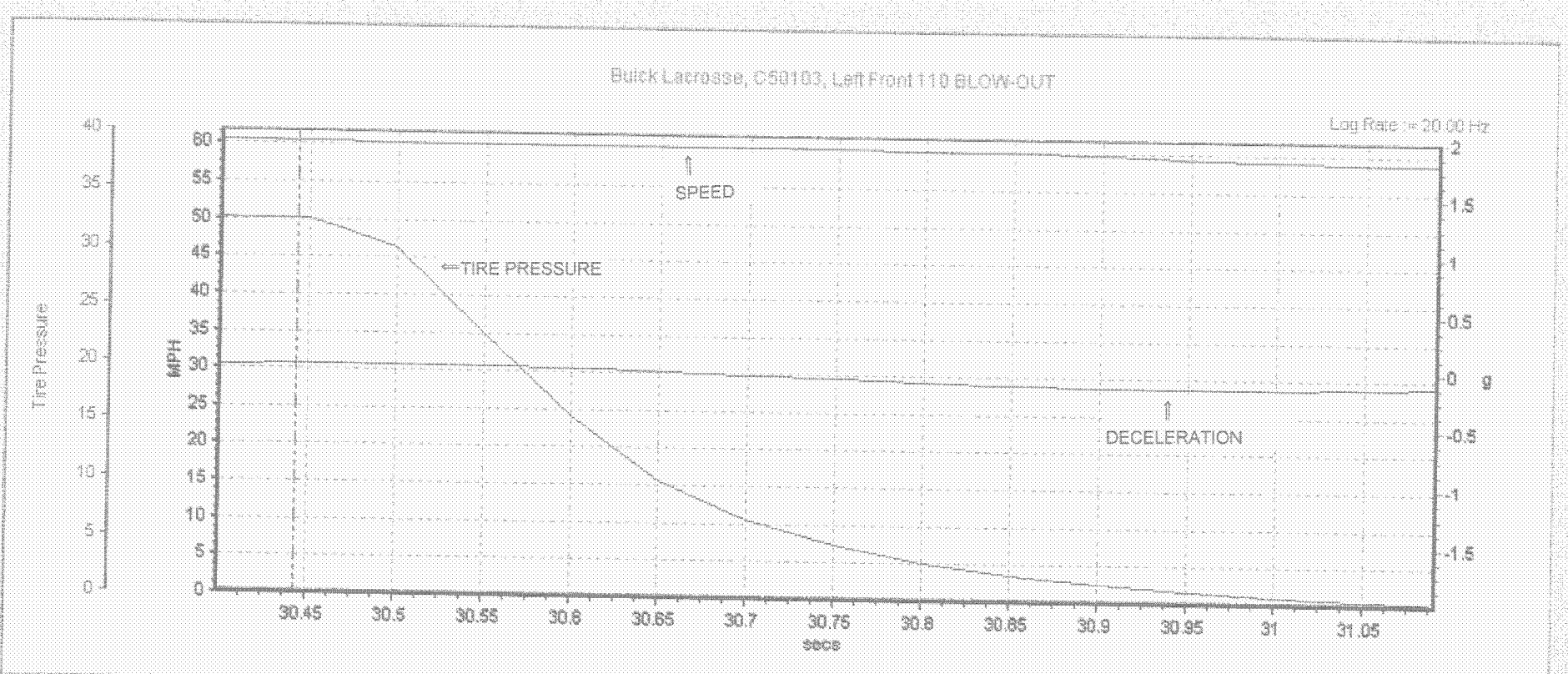


Buick Lacrosse, CRR, 110 run				
Run Time	0 minute 55.10 secs			
Cursor (Feet)	1671.88			
Speed (MPH)	59.98			
(°F)	74.535			
(PSI)	30.541			
Longitudinal Acceleration (g)	-0.038			
Height (Feet)	-85.836			
Vertical Velocity (MPH)	0.000			
Satellites (Number of)	8			

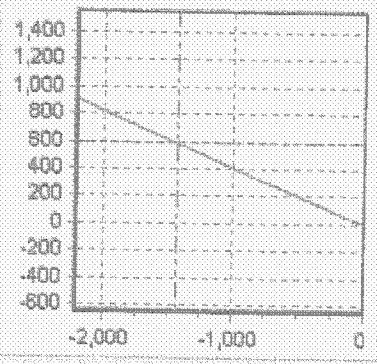


Speed Vs Time

File Edit Smoothing Graph Type Select Run Graph Properties Start/Finish & Splits



Run Time	0 minute 54.25 secs
Cursor (secs)	30.44
Speed (MPH)	60.23
(°F)	79.213
(PSI)	32.405
Longitudinal Acceleration (g)	-0.013
Height (Feet)	-88.545
Vertical Velocity (MPH)	0.000
Satellites (Number of)	11



Speed Vs Distance Graph

File Edit Smoothing Graph Type Select Run Graph Properties Start/Finish & Splits

Buick Lacrosse, C50103, Left Front 110 BLOW-OUT				
Run Time	0 minute 54.25 secs			
Cursor (Feet)	1552.90			
Speed (MPH)	60.24			
(°F)	79.213			
(PSI)	32.405			
Longitudinal Acceleration (g)	-0.017			
Height (Feet)	-99.531			
Vertical Velocity (MPH)	0.000			
Satellites (Number of)	11